

**Secondary 1 Honors Unit 7 - Review Sheet**  
**(No Graphing Calculator Needed)**

The number of years the Utah Jazz players have been in the NBA (as of 2015 season) is listed below, as well as a five Number Summary of the data. Use the information to answer the following questions about the data set.

4 1 3 1 4 0 4 1 4 0 0 3 0 8 4

Min: 0      Q1: 0      Med: 3      Q3: 4      Max: 8      Mean: 2.47

1. Are there outliers in this data set? If so, state the lower and upper limits

Lower Limit: -6      Upper Limit: 10

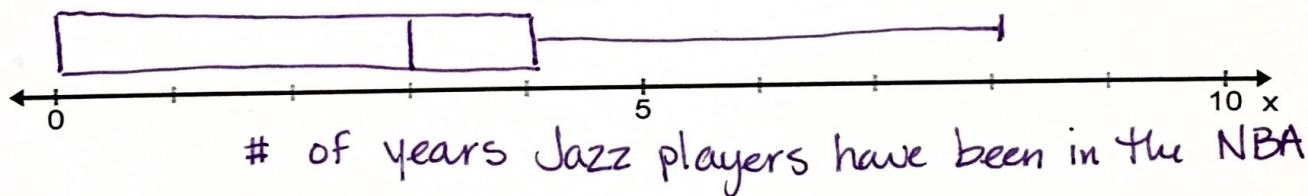
2. What is the distribution for this data set? (normal, skew right, skew left) Explain your reasoning

Normal - the mean & median are very close.

3. If there were a player that joined the Jazz and they had been in the NBA for 18 seasons, which would be affected more- the mean or the median? Which direction would each measure of center move?

The mean would move to the right (higher)  
The median would be the same.

4. Draw a Box and Whisker plot of the data, including outliers. Remember to label.



The number of DVDs rented at Redbox each day was recorded for two weeks. The data set as well as a Five Number Summary is listed below. Use the information to answer the following questions.

58, 42, 50, 65, 72, 61, 78, 60, 34, 71, 71, 63, 67, 94

Min: 34      Q1: 58      Med: 64      Q3: 71      Max: 94      Mean: 63.29

5. Calculate the lower and upper limits for outliers: Are there any outliers in the data set?

Lower Limit: 38.5      Upper Limit: 90.5

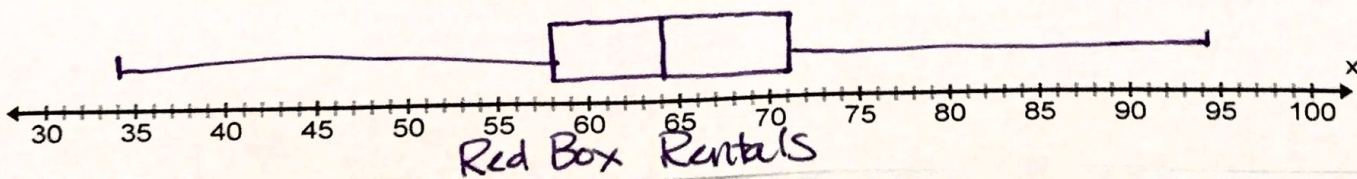
6. What is the distribution of this data set?

Normal. Mean & Median are very close.

7. If there was a power outage one day and the number of Redbox rentals was only 6 DVDs, which measure of center would be affected more- the mean or the median? Which direction would it move?

Lower, to the left

8. Draw a Box and Whisker plot of the data, including outliers. Remember to label.



The prices of watches sold at a store, measured in dollars is given below as well as the Five Number Summary. Use the information to answer the following questions about the data set.

16, 22, 31, 36, 44, 45, 65, 68, 71, 100, 149

Min: 16    Q1: 31    Med: 45    Q3: 71    Max: 149    Mean: 58.8

9. Calculate the lower and upper limits for outliers. Are there any in this data set?

Lower Limit: -29    Upper Limit: 131

10. What is the distribution of this data set?

Skewed Right     $\bar{x}$  is higher than the median

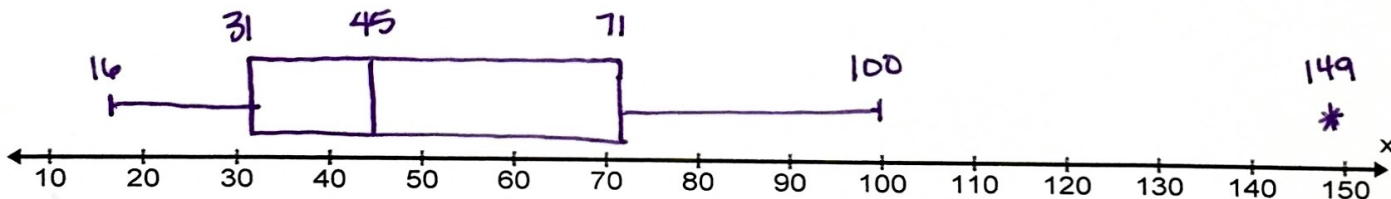
11. Suppose the store got a new watch, and the price is \$89. With this new value added, re-calculate the mean and the median. Which has been affected more? Why?

Mean: 61.3    Median was affected more.  
 Median: 55    The median went from 45 to being between 45 & 65, which is 55. The  $\bar{x}$  only changed a little bit.

12. Would a watch that costs \$125 be considered an outlier in the original data set? Explain your response

No. It is not passed the upper limit of 131.

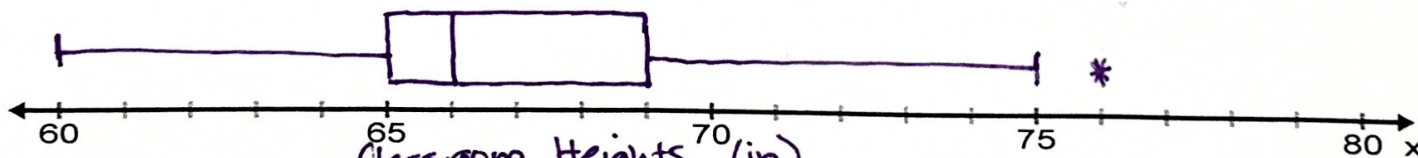
13. Draw a Box and Whisker plot of the original data, including outliers. Remember to label.



Make Box and Whisker Plots for the following data sets **BY HAND**. Include outliers if they exist.

14. Heights of people in a classroom (measured in inches)

66 70 63 67 64 65 69 76 65 68 65 60 75 66 69



Lower Limit : 59

Upper Limit : 75

Min : 60

Q1 : 65

Med : 66

Q3 : 69

Max : 76

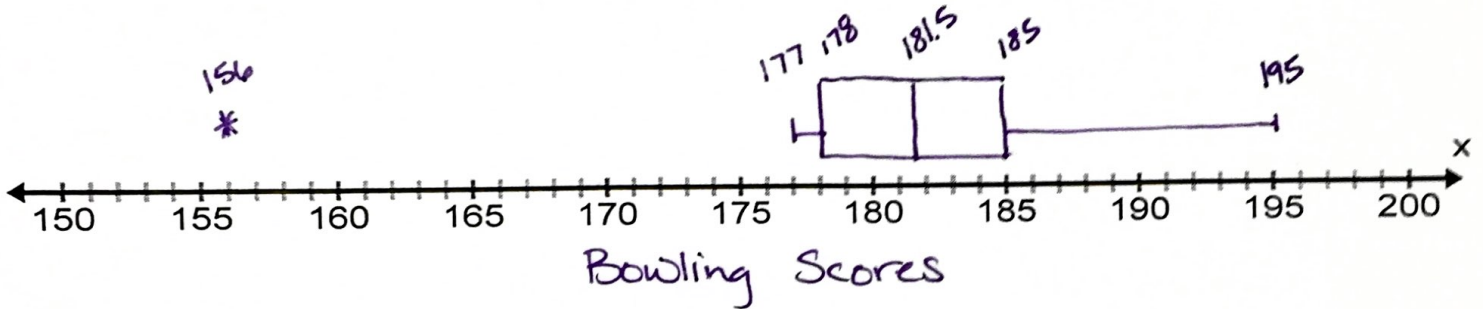
IQR : 4

Make Box and Whisker Plots for the following data sets **BY HAND**. Include outliers if they exist.

15. Bowling scores from a league at Jack and Jill's.

Lower Limit: 167.5  
Upper Limit: 195.5

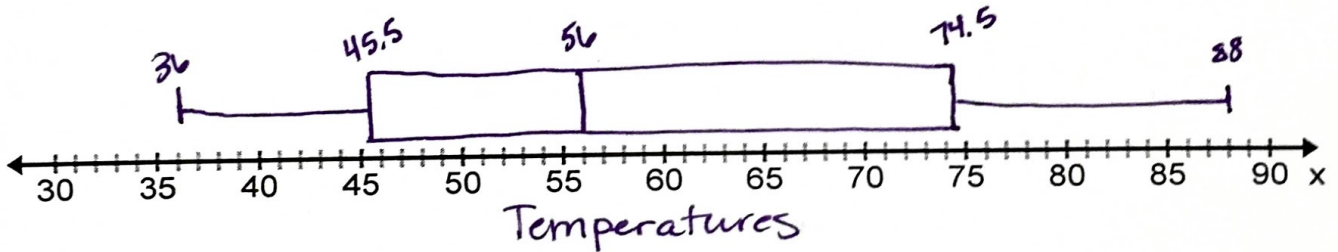
181 185 156 180 181 195 186 177 182 183 178 177 184 191



16. Temperatures in Utah's largest cities on May 1, 2014

55 58 36 52 75 63 82 43 53 88 68 77 42 48 39 74 56

Lower Limit: 2 No Outliers  
Upper Limit: 118



A survey was taken about body image. The results were organized into a two way table. Complete the two way table and answer the following questions.

	About Right	Overweight	Underweight	Total
Females	560	163	37	760
Males	295	72	73	440
Total	855	235	110	1200

17. What percent of females thought their bodies were about the right size?  $\frac{560}{760} = 73.68\%$

18. What percent of people who believed they were overweight were males?  $\frac{72}{235} = 30.64\%$

19. What percent of people surveyed felt they were not the correct weight?  $\frac{345}{1200} = 28.75\%$

20. What percent of people surveyed were males that felt they were underweight?  $\frac{73}{1200} = 6.08\%$

A school dance was held, and you observed the number of students wearing purple. Out of 654 students that were at the dance, 391 were not wearing purple. There were 136 girls wearing purple. There were 309 boys at the dance. Create a two-way table summarizing the data and answer the following questions.

	WORE PURPLE	NO PURPLE	Total
BOYS	127	182	309
GIRLS	136	209	345
Total	263	391	654

21. What percent of boys were wearing purple?

$$\frac{127}{309} = 41.1\%$$

22. What percent of students wearing purple were girls?

$$\frac{136}{263} = 51.71\%$$

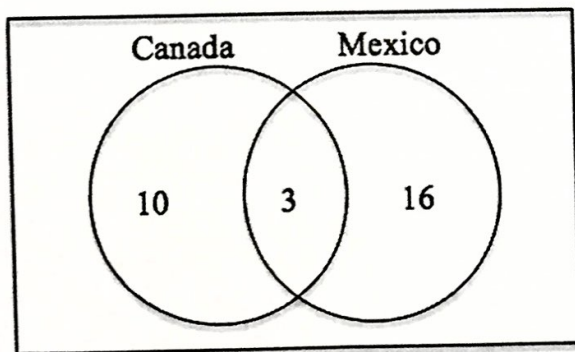
23. What percent of students at the dance were boys that were not wearing purple?

$$\frac{182}{654} = 27.83\%$$

24. What percent of students wore purple to the dance?

$$\frac{263}{654} = 40.21\%$$

A class of 40 students was surveyed about if they had visited Canada or Mexico. The results are shown in a Venn diagram. Create a two way table summarizing the data and answer the following questions.



	Been to Canada	NOT been to Canada	Total
Been to Mexico	3	16	19
Not been to Mexico	10	11	21
Total	13	17	40

25. What percent of students that have been to Mexico have been to Canada as well?

$$\frac{3}{19} = 15.79\%$$

26. What percent of students that have been to Canada have not been to Mexico?

$$\frac{10}{13} = 76.92\%$$

27. What percent of students surveyed have been to Canada?

$$\frac{13}{40} = 32.5\%$$

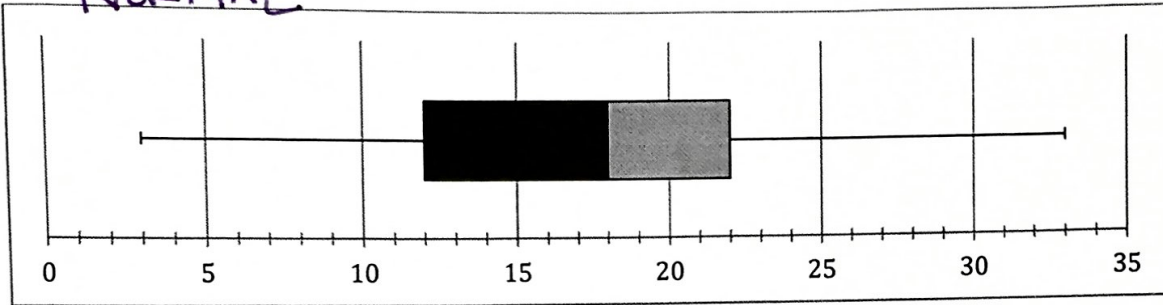
28. What percent of students surveyed have not been to either country?

$$\frac{11}{40} = 27.5\%$$

Describe the distribution of the following Box and Whisker Plots.

29.

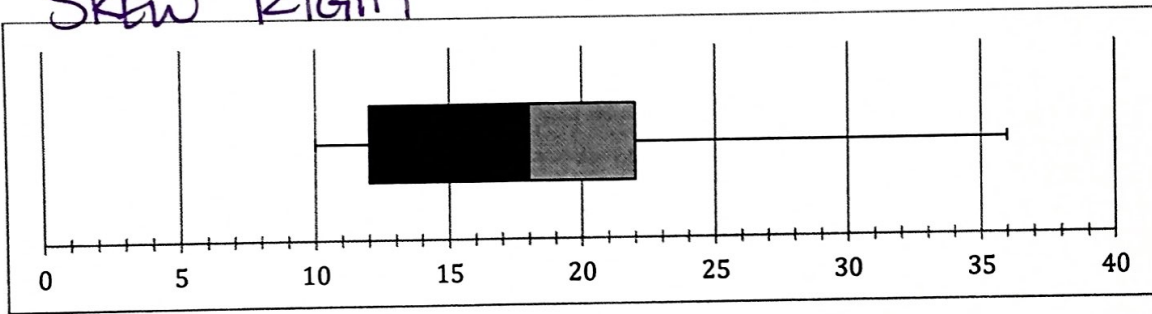
NORMAL



Mean = 19.25

30.

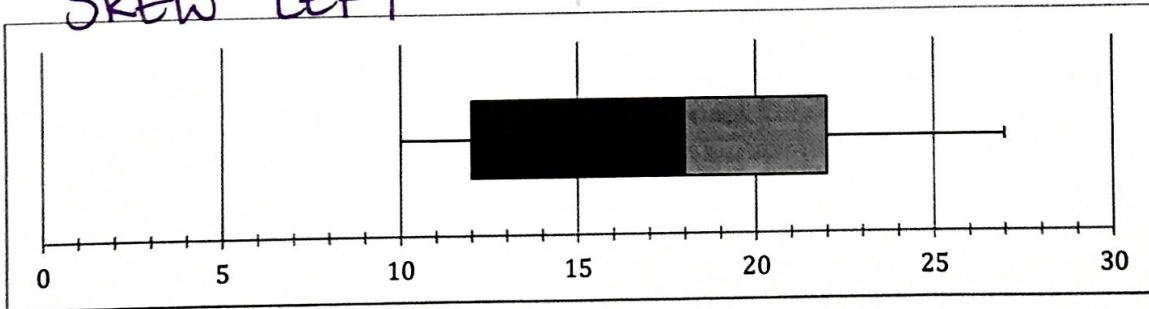
SKEW RIGHT



Mean = 21.5

31.

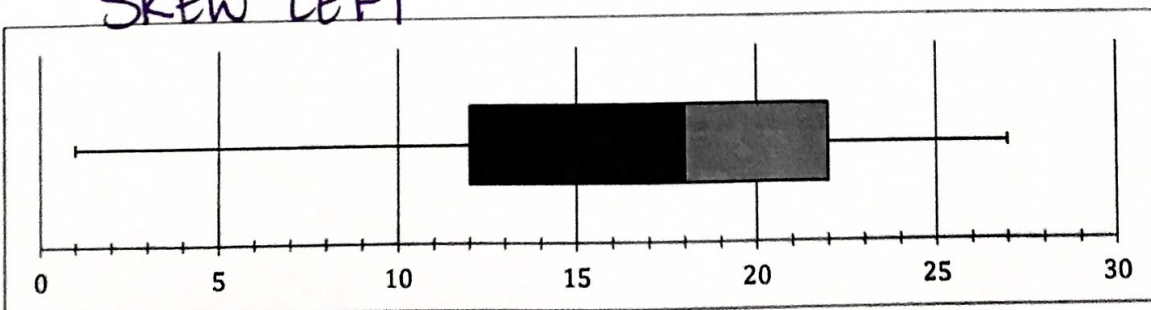
SKEW LEFT



Mean = 14.7

32.

SKEW LEFT

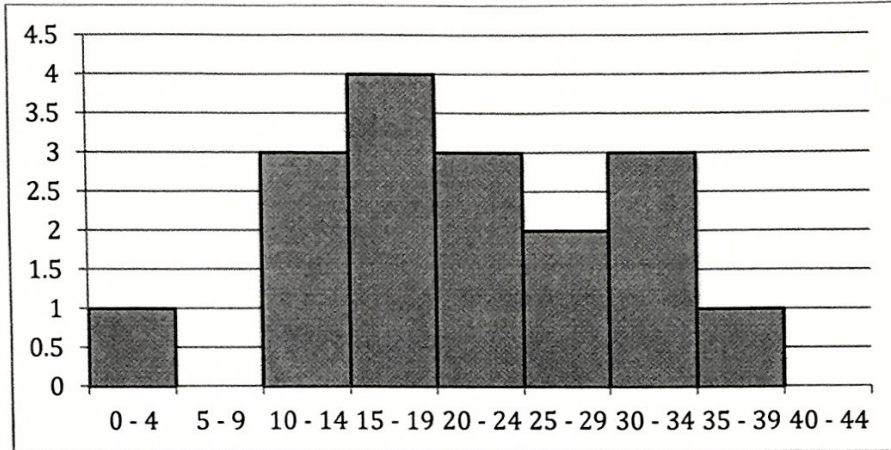


Mean = 13.9

What is the distribution of each of the following histograms? (skew left, skew right and normal)

33,

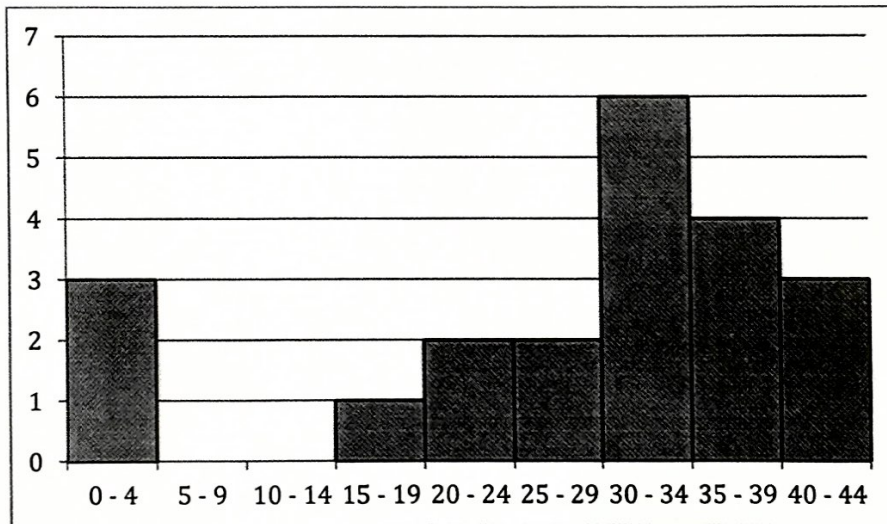
NORMAL



Mean: 22.41  
Median: 20

34.

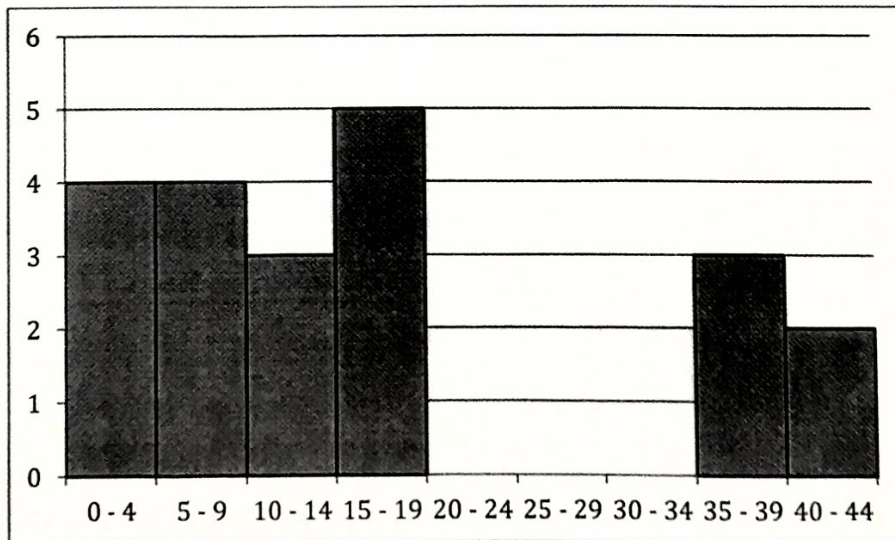
SKEW LEFT



Mean: 26.14  
Median: 30

35.

SKEW RIGHT



Mean: 18.76  
Median: 14